

adenoid and tonsil are grouped, plus the secondary infections of chest and abdomen, infections of the meninges, heart valve, or muscle, lungs, pleura, glands, joints, liver, kidney, colon, or appendix; recorded on the Chart under headings 2, 3, 4, 5, and first half of 6.

Under the third subject the structural defects of hernia and abnormalities of genitalia and rectum are included; also under these "Postural and Structural Defects" charted as last half of 6, numbers 7 and 8, are further grouped the common defects of the legs and feet; degenerative changes as indicated by abnormal reflexes or locomotion; positive Wassermann and anatomical stigmata are here included. Faulty body positions, which children at the imitative and imaginative age so easily acquire, naturally fall under Posture. Eye strain is here placed, because so often the abnormal head or shoulder position is the first symptom attracting attention of the examiner to eye complications. Common symptoms relative to temperature, bowel activity, sleep and appetite are grouped at the bottom of the column together. The examination as recorded in the practical everyday routine is made in sequence from 1 to 50 of the points specified, beginning with a general inspection while gaining the child's confidence. It is perhaps needless to add that the office nurse can readily learn to plot details of the examination.

Finally, the basic purpose of all this detailed work is to check preventable disease, and to establish normal and desirable habits during formative years. The method suggested brings an observable result by no means to be ignored in these days of changing creeds and shifting public opinion in the realization of a better understanding between patient, parent and physician. "An apple a day keeps the doctor away" conveys a sinister meaning to the mind of the parent, anxious over her child, yet fearful lest she fall into error in seeking advice until necessity demands. For successful corrective work a confidential relation between patient and physician is almost essential, and one of the far-reaching results of these periodic examinations, aside from the educational value to the parent and child, is that of continued friendly relations between patient and physician. Only with such a relation are we in a position to offer our services or to bring into the problem consultation at a time when the "ounce of prevention" can most avail; in fact, the understanding between the parent and the Pediatricist will perhaps ultimately evolve into an agreement covering years instead of from day to day, as at present, in order that the physician may give directions when he ought and as he ought. Thus, with a systematic supervision over the health of the Runabout, the Pediatricist not only has a comprehensive memorandum for reference and parental direction, but the Health Status of the child assumes a clear prospective, absolutely essential in the accomplishment of our aim.

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## ECONOMICAL ASPECTS OF STATE HOSPITAL DISCHARGES AND PAROLES.

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During the two years ending June 30, 1918, there were 1472 patients under treatment as insane. Of this number some have been residents since the opening of the hospital in 1893, while 379 were admitted during the last two years. Their ages are between 10 and 93 years.

From among this number 182 patients left the hospital to renew their social relations independently or with the assistance of relatives or friends. Their relationship to the hospital at the time of leaving is shown in

TABLE I.

	Men	Women	Total
Discharged .....	55	12	67
Paroled .....	43	29	72
Absent 30 days on elopement.....	43	0	43
Total.....	141	41	182

Thirty-seven patients were discharged or paroled following manic depressive attacks. Among those discharged the duration of the first attack averaged 13.33 months and the hospital treatment for them 8.75 months, while the duration of multiple attacks was 8.66 months and of their treatment 7.64 months. The average length of first manic attacks was over twice as great as the average length of all manic attacks. First depressions average 13.5 months' duration, while the average for all depressions was 12.6 months. The character of the symptoms in the first manic attack led to hospital treatment for 11 of the 13.1 months' duration of the attack, while the first depressed attack received hospital treatment for only 8 months of the 13.5 months that the attack lasted, probably because he was troubling no one but himself. It is also notable that subsequent depressed attacks, having more insight, received treatment during 9.7 months of the 12.6 months' duration of the attack; which insight also undoubtedly accounts for those suffering from multiple attacks being under treatment throughout a much larger part of the attack.

Parole seemed preferable for 23 of these, in some cases to facilitate the return without the unpleasant features of recommitment, and in others because the patients were not fully recovered when returned to their relatives.

Five who were paroled returned to the hospital because of recurrence of mental symptoms after an average parole period of 6.7 months. All five had had two or more previous attacks of mania and two of them were subsequently again paroled and have remained absent to date.

Five others have been absent on parole an average period of 4.15 months.

Thirteen were discharged from parole as recovered after an average parole period of 6.15 months.

It appears on analysis of this group that the average parole period for those discharged following a first manic attack was three months and that the sum of the parole period and hospital residence is the same as the hospital residence period for the similar cases discharged on leaving. It also appears that those paroled following multiple attacks of

manic depressive insanity form a distinct group from those discharged at the time of leaving the hospital. The average duration of attack of both phases was twice as long as in the group discharged when leaving, and while the minimum age in the two groups was the same, the average age of those in the paroled group was 41.22, while in the directly discharged group it was 31.14 years. To this older group belong those patients having no one sufficiently interested to take the responsibility of parole and who, under present conditions, must remain in the hospital until more complete recovery is secured.

Ten cases of Dementia Praecox were discharged. Three were unimproved and were discharged in care of relatives who wished to assume the responsibility, that the patients might be near their friends. Four male hebephrenics, whose average age was 25 years 9 months, were sufficiently free from symptoms to be discharged as improved and be at least temporarily self-supporting after a hospital residence averaging six months.

One 19-year-old girl was so free from evidences of katatonia after 7.5 months' residence that she was considered a social recovery. A woman of 49 dropped her paranoid ideas and adapted herself so well that she was so considered after 2½ years' hospital residence.

Eleven patients who could not have left the hospital except under supervision were paroled and have remained out an average period of 6.47 months. Their average age was 28 years, and average hospital residence 8.98 months. Among these was a patient who, previous to his parole, had a hospital residence of 20 years 4 months, and who remained outside over 10 months.

One man adapted himself to a new environment and was subsequently discharged improved.

In all, a number equivalent to 14% of those admitted during the biennium suffering from Dementia Praecox were able to leave the hospital under present conditions.

Of 15 patients who were constitutionally psychopathic and who came to the hospital with mental upsets following added stress, 10 completely recovered from the disturbances leading to admission and were so discharged after an average hospital residence of 10.3 months. Two others were paroled after an average hospital residence of 7.4 months and discharged after parole periods averaging 4.5 months. One woman who was fanatically religious returned after 19 months' parole because of uncontrolled litigious tendencies.

Three patients diagnosed as paranoid states left the hospital. One man, aged 49, was markedly arterio-sclerotic and dropped his paranoid ideas as his physical condition improved and was discharged recovered. Another was improved after 10 months' hospital residence. One woman was paroled after 15 months' hospital residence. The ages of all were between 49 and 56.

Among the alcoholic psychoses, those quickly recovering from mental symptoms were retained for institutional treatment for the underlying alcoholism.

The results of trial in the cases of five general

paretics are various. One mildly demented man, who was discharged by court order and who physically was considered an arrested case, has been comfortable for over a year. Two patients, who each gave a history of conduct disorders, with mental dilapidation, cleared mentally during an average hospital residence of 9.25 months, and while still exhibiting the diagnostic neurological and serological findings, have been regularly employed at home for over a year. One demented patient was returned after three weeks' trial and one man died in convulsions 2½ months after leaving the hospital.

The other groups are too small for statistical study, but are included for analysis of the economical problems.

Forty-three men eloped and were absent one month or more. The results of these elopements are shown in

TABLE II.

## RESULTS OF ELOPEMENTS.

	Age	Attack	Hospital	Elopement	
	Males Years	Duration Months	Residence Months	Duration Months	
Voluntary returns .....	3	31.3	17.7	13	2.06
Returned by officers .....	5	25.2		114.84	1.12
Admitted elsewhere .....	2	28.5	148	123.5	.85
Discharged recovered .....	3	34.6	18.03	17.8	13.4
Discharged improved .....	2	34.	52.25	22.	2.51
Died .....	2				
Eloped (whereabouts un- known) .....	28	34.5	60.58	29.3	11.5
Total .....	45				
Counted twice .....	2				
No. Patients .....	43				

Voluntary returns were of patients diagnosed Dementia Praecox, Paranoid; Constitutional Psychopathic Inferiority and Manic Depressive Insanity.

The Dementia Praecox patient returned after two months' absence to secure the assistance of the hospital regarding his legal status. As he was self-supporting and apparently able to conduct himself normally in his new environment, he was discharged socially recovered. The Constitutional Psychopathic Inferiority returned after three months for the same reason and was discharged recovered. The Manic Depressive was a first manic attack under treatment 14.1 months. After an absence of 1.2 months he returned confused and mildly depressed and was retained as he evidently appreciated his need of treatment.

Returned by officers were five, all of whom remained out barely one month. Two were returned because of conduct disorder; two were mentally unable to hold employment, although quiet and willing; one was physically unable to work.

Two Dementia Praecox patients were apprehended and admitted, one to Stockton and one to Napa State Hospital.

Discharged recovered were two cases of Delirium Tremens, aged 30 and 50 years, after absence from the hospital of 9.2 and 22 months; and one epileptic who had lessened frequency of convulsions and absence of dream states during six months' hospital residence, was discharged after nine months' absence.

Discharged improved were one Dementia Praecox case, age 41, whose hospital residence was 40

months, and one Drug Delirium case, age 27, after a hospital residence of four months.

There died one Moron, age 40, whose hospital residence was 14.6 months. He was murdered in his bedroom in San Francisco after an absence of 8.5 months. There also died one Paranoid State, age 58, who was quiet and comfortable and was accidentally killed by a train ten days after eloping.

TABLE III.

ELOPED PATIENTS NOT ACCOUNTED FOR.

	Males	Age Years	Hospital		
			Duration Months	Residence Months	Absent Month
Manic Depressive .....	1	25	10.3	10.1	13.1
Dementia Praecox .....	19	35.6	71.8	36.8	12.25
Delirium Tremens .....	1	41		2.33	12.66
Alcoholic Hallucinosiis .....	2	50.5	6.25	20.1	7.3
Prison Psychosis .....	1	36	39.9	36.9	5.
Epilepsy .....	1	23.		2.5	20.
Moron .....	3	21.6		10.6	8.6
Total .....	28				
Average .....		34.5	60.58	29.3	11.5

All of these patients but one Dementia Praecox were comfortable enough to be working.

It is probable that the four diagnosed as Manic Depressive, Delirium Tremens and Alcoholic Hallucinosiis, made complete recoveries.

Among the others a past history of roving was very prevalent and it is probable that some of these have been admitted to hospitals in other communities. It is also very probable that more than half have secured employment during the present labor shortage, which makes them self-supporting.

Owing to the variety of psychoses, as well as of conditions of patients when leaving and also of methods of absenting from the hospital, it quickly becomes evident that the economical aspects of the results of treatment of the insane in a State hospital cannot be considered without taking into account the medical side.

The average hospital residence of a patient discharged recovered was 6.905 months, which, based upon the present per capita rate, costs \$113.10.

The foregoing tables show that the parole periods in the various psychoses are as variable as the periods of hospital residence.

The cost of treatment during 15.4 months for the 22 who were absent on parole during the 5.56 months before their return became necessary, was \$252.09 per patient.

The financial saving to the State by the parole of the 75 patients leaving the hospital by this method is shown below. This, of course, cannot include any figures showing the additional saving by the large proportion of these who took up useful occupations immediately upon leaving the hospital.

Twenty-one patients were on parole 5.8 months before discharge and would have cost for hospital care during that period \$1995.08

Twenty-two patients were on parole 5.56 months before their return and would have cost ..... 2003.60

Thirty-two have been on parole 8.64 months, saving ..... 4528.74

Total saving by present parole system....\$8527.42

Of the 32 still on parole, it is reasonable to

expect that 18 will be eventually discharged recovered.

The patients now discharged from parole spend but 60% of the period of commitment actually in the hospital and it is not unreasonable to assume that those discharged when leaving could spend the last 40% of their commitments under outside supervision, which method would have saved the hospital \$2253.55 during the past biennial period.

The actual saving to the hospital, combined with earlier return to former occupations, makes the economic value of the parole system very apparent and suggests the advisability for financial reasons, if for no others, of extending the parole system to provide for the large number of patients who have no one willing or able to assume such responsibility.

It is impossible without reviewing a much larger group of cases, even to attempt an estimate of the number now in the hospital who could live outside, for a time at least, under suitable supervision, but the fact that so many of these who took the matter into their own hands and eloped were able to be self-supporting, is strongly suggestive that they, and undoubtedly many more, could do well enough under supervision to effect a large saving.

The discharged patient is provided with clothes and a small sum of money by the hospital. The paroled patient is provided with nothing and is dependent on his friends, and therefore the friendless patient, no matter how worthy, cannot be paroled.

This is manifestly unjust discrimination and it is to be hoped that some adjustment between the two classes can be made whereby provision shall be made by the State, or some benevolent organization, to meet the parole requirements of this friendless group.

#### THE USE OF CAMPHOR AS A STIMULANT AND AS A PNEUMOCOCCICIDE IN PNEUMONIA.\*

By F. F. GUNDRUM, M. D., Sacramento, Cal.

The hypodermatic use of camphor dissolved in oil as a stimulant is too widespread to require introduction. All drug stores carry a supply of this drug in ampoules sterilized and ready for immediate exhibition. The injection of camphor in larger doses with expectation of producing a pneumococcicidal effect has not been so universally adopted but has been urged by Seibert<sup>1</sup> and Cruikshank<sup>2</sup> who report excellent results from this procedure. They recommend the hypodermatic injection of 10 cc. of a 30% solution of camphor in oil of sesame at twelve-hour intervals until the temperature shall have reached normal. Other authors, however, notably Head and Brooks<sup>3</sup> are far from enthusiastic over the value of camphor as a stimulant, in fact these latter consider it quite inert. With the hope of decreasing our always robust mortality from pneumonia at the Sacramento County Hospital and also of de-

\* Read before State Society, Santa Barbara, April 16, 1919.

<sup>1</sup> Discussed by Drs. D'Arcy Power, Brem, Fulton, Pottenger, Evans, Gundrum.